

**THE INVENTION CLAIMED IS:**

- 1        1. A method for use in a network over which multiple devices belonging to  
2 a defined set communicate with each other by sending messages, the method  
3 comprising:
  - 4              in each message, including a network descriptor that is determined as a  
5 known function of at least a particular identifier associated with at least one of  
6 the devices;
  - 7              characterized in that the method further comprises:
    - 8                  changing the network descriptor over time, whereby the network  
9 descriptors in the messages received by a device outside the defined set are  
10 impeded from being associated with a particular device from within the set.
- 1        2. The method of claim 1 wherein the network descriptor is changed  
2 when a session begins on one of the devices within the set.
- 1        3. The method of claim 2 wherein the network descriptor is computed as  
2 a known function of a seed and the particular identifier associated with at least  
3 one of the devices.
- 1        4. The method of claim 3 wherein the known function is a one-way  
2 function.
- 1        5. The method of claim 3 wherein the seed is at least a first random  
2 number generated by at least one of the devices for use in computing the  
3 network descriptor used in messages within a current session.

1        6. The method of claim 5 wherein the seed is combination of the first  
2 random number and at least a second random number generated by at least one  
3 of the devices for use in computing the network descriptor used in messages  
4 within at least one previous session.

1        7. The method of claim 2 wherein after a session begins the network  
2 descriptor is further changed on a periodic basis within the duration of the  
3 session.

1        8. The method of claim 7 wherein the network descriptor is computed as  
2 a known function of a seed and the particular identifier associated with at least  
3 one of the devices.

1        9. The method of claim 8 wherein the seed is a combination of at least a  
2 time parameter associated with at least one of the devices and a first random  
3 number generated by at least one of the devices for use in computing the  
4 network descriptor used in messages within a current session.

1        10. The method of claim 9 wherein the seed is a combination of the time  
2 parameter associated with at least one of the devices, the first random number,  
3 and at least a second random number generated by at least one of the devices  
4 for use in computing the network descriptor used in messages within at least one  
5 previous session.

1        11. A method for use in a wireless network over which multiple Bluetooth-  
2 enabled devices within a defined set communicate with each other by sending  
3 messages to and from a master device within the set, the method comprising:

4       in each message, sending a channel access code (CAC) that is a known  
5       function of a Bluetooth address (BD\_ADDR) associated with the master device,  
6       characterized in that the method further comprises:  
7           changing the CAC over time, whereby the CACs in the messages  
8       received by a device outside the defined set are impeded from being associated  
9       with a particular device from within the set.

1       12. The method of claim 11 wherein the CAC is changed when a session  
2       begins on one of the devices within the set.

1       13. The method of claim 12 wherein the CAC is computed as a known  
2       function of a seed and the BD\_ADDR of the master device.

1       14. The method of claim 13 wherein the known function is a one-way  
2       function.

1       15. The method of claim 13 wherein the seed is at least a first random  
2       number generated by at least one of the devices for use in computing the CAC  
3       used in messages within a current session.

1       16. The method of claim 15 wherein the seed is a combination of the first  
2       random number and at least a second random number generated by at least one  
3       of the devices for use in computing the CAC used in messages within at least  
4       one previous session.

1       17. The method of claim 12 where after a session begins the CAC is  
2       further changed on a periodic basis within the duration of the session.

1        18. The method of claim 17 wherein the CAC is computed as a known  
2 function of a seed and the BD\_ADDR associated with the master device.

1        19. The method of claim 18 wherein the seed is a combination of at least  
2 a time parameter associated with at least one of the devices and a first random  
3 number generated by at least one of the devices for use in computing the CAC  
4 used in messages within a current session.

1        20. The method of claim 19 wherein the seed is a combination of the time  
2 parameter associated with at least one of the devices, the first random number,  
3 and at least a second random number generated by at least one of the devices  
4 for use in computing the CAC used in messages within at least one previous  
5 session.

1        21. Apparatus for use in a device that sends and receives messages to  
2 other devices within a defined set on a network, said apparatus comprising:  
3            means for computing for inclusion within each message a network  
4 descriptor as a known function of at least a particular identifier associated with at  
5 least one of the devices within the set; and  
6            means for changing the network descriptor over time, whereby the  
7 network descriptors in the messages received by a device outside the defined  
8 set are impeded from being associated with a particular device from within the  
9 set.

1        22. The apparatus of claim 21 further comprising means for detecting the  
2 beginning of a session on one of the devices within the set, the changing means

3 causing the computing means to recompute the network descriptor when the  
4 beginning of a session is detected.

1           23. The apparatus of claim 22 further comprising means for providing a  
2 seed to the computing means, the computing means computing the network  
3 descriptor as a known function of the seed and the particular alphanumeric  
4 characteristic associated with at least one of the devices.

1           24. The apparatus of claim 23 wherein the known function is a one-way  
2 function.

1           25. The apparatus of claim 23 wherein the seed is at least a first random  
2 number generated for use in computing the network descriptor used in  
3 messages within a current session.

1           26. The apparatus of claim 25 wherein the seed is a combination of the  
2 first random number and at least a second random number generated for use in  
3 computing the network descriptor used in messages within at least one previous  
4 session.

1           27. The apparatus of claim 22 wherein the changing means changes the  
2 network descriptor on a periodic basis within the duration of a session once the  
3 session begins.

1           28. The apparatus of claim 27 further comprising means for providing a  
2 seed to the computing means, the computing means computing the network

3 descriptor as a known function of the seed and the particular identifier  
4 associated with at least one of the devices.

1       29. The apparatus of claim 28 wherein the seed is a combination of at  
2 least a time parameter associated with at least one of the devices and a first  
3 random number generated by at least one of the devices for use in computing  
4 the network descriptor used in messages within a current session.

1       30. The apparatus of claim 29 wherein the seed is a combination of the  
2 time parameter associated with at least one of the devices, the first random  
3 number and at least a second random number generated by at least one of the  
4 devices for use in computing the network descriptor used in messages within at  
5 least one previous session.

1       31. Apparatus for use in a Bluetooth-enabled device that sends and  
2 receives wireless messages to other Bluetooth-enabled devices within a defined  
3 set, said apparatus comprising:

4           means for computing for inclusion within each message a channel access  
5 code (CAC) as a known function of a Bluetooth address (BD\_ADDR) associated  
6 with a master device within the defined set; and

7           means for changing the CAC over time, whereby the CACs in the  
8 messages received by a device outside the defined set are impeded from being  
9 associated with a particular device from within the set.

1       32. The apparatus of claim 31 further comprising means for detecting the  
2 beginning of a session on one of the devices within the set, the changing means

3 causing the computing means to recompute the CAC when the beginning of a  
4 session is detected.

1       33. The apparatus of claim 32 further comprising means for providing a  
2 seed to the computing means, the computing means computing the CAC as a  
3 known function of the seed and the BD\_ADDR associated with the master  
4 device.

1       34. The apparatus of claim 33 wherein the known function is a one-way  
2 function.

1       35. The apparatus of claim 33 wherein the seed is at least a first random  
2 number generated by at least one of the devices for use in computing the CAC  
3 used in messages within a current session.

1       36. The apparatus of claim 35 wherein the seed is a combination of the  
2 first random number and at least a second random number generated by at least  
3 one of the devices for use in computing the CAC used in messages within at  
4 least one previous session.

1       37. The apparatus of claim 32 wherein the changing means changes the  
2 CAC on a periodic basis within the duration of a session once the session  
3 begins.

1       38. The apparatus of claim 37 further comprising means for providing a  
2 seed to the computing means, the computing means computing the CAC as a

3 known function of the seed and the BD\_ADDR associated with the master  
4 device.

1       39. The apparatus of claim 38 wherein the seed is a combination of at  
2 least a time parameter associated with at least one of the devices and a first  
3 random number generated by at least one of the devices for use in computing  
4 the CAC used in messages within a current session.

1       40. The apparatus of claim 39 wherein the seed is a combination of the  
2 time parameter associated with at least one of the devices, the first random  
3 number, and at least a second random number generated by at least one of the  
4 devices for use in computing the CAC used in messages within at least one  
5 previous session.